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Conservation - A Changing Concept

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In 1925, the State of California had a population of slightly more than 4,000,000 people. The fresh winds blew through the Golden Gate and rippled the waters of San Francisco Bay, unspanned by bridges. The El Pueblo de Nuestra Senora la Reina de Los Angeles—which had been cruelly abbreviated to Los Angeles, lay under a warm bright sun retaining much of its Spanish charm. The Sierra, the Siskiyous, the Cascades and the Coast Range were crowned with forests—a paradise for a young forester, fresh from the tutelage of such great men as G. B. MacDonald, Dwight Jeffers, Horace Andrews and Skipper Larsen. In retrospect it was a quiet time and the chief concerns were focused on the custodianship of the forests.

Some dimly sensed, but few realized the sweeping changes in practices and philosophies that would begin in a few short years.

Forestry as a profession is relatively young in America. It had its genesis about the turn of the century. Gifford Pinchot and Teddy Roosevelt popularized the conservation concept with a philosophy of wise-use—"Use well all the land". Professor Schenck of Germany established the first school of forestry on the Biltmore Estate in North Carolina; and he worked closely with Pinchot and Frederick Law Olmstead, the father of Landscape Architecture.

The principles of European forestry as practiced over many years did not necessarily apply to a young pioneering nation with mature stands of timber, and heavy demands for forest products to build homes, railroads and industries. The challenge was to build an empire, to create jobs and industries, to clear the forests for agricultural production.

When the country was being settled and developed the forests were a wilderness, and to many an obstacle to development. This wilderness was something to be conquered and converted to use. Convert the trees to lumber and clear the land for agriculture. We now see this same concept of exploitation taking place in the developing nations.

One of the first laws to be passed which recognized the western forests as a public resource was the Yellowstone Park Act of 1872, setting aside 3000 square miles as a "pleasuring ground" for the people. In the 1880's California, New York, Colorado and Ohio established State Forestry Boards. The concept and goal behind these early state policies is illustrated by the California law which authorized the Board of Forestry "to act with a special view to the continuance of water sources that may be effected in any measure by the destruction of forests . . . ".

It is interesting to note that these acts focused on resources other than trees. It is also interesting to note that some of the early Homestead laws required the planting of trees in the prairie and great plains states. We still see remnants of these in many farm woodlots. Unfortunately, most of them have received little care, and few of the groves are being replaced as they mature and die. They did, however, contribute to the beauty of the landscape and offered protection from the rigors of weather. The drive to plant groves of Eucalyptus in California, which did not achieve its original goal of the production of railroad ties and furniture did, however, contribute greatly to the California landscape.

The finest early conservation concept was the establishment of the Forest Reserves by Presidential Proclamation in the 1890's and early 1900's. They were established to assure a continuous supply of timber and to protect the watersheds and the water flow of streams. The first legal use of the forest reserves was authorized by Congress in the Sundry Civil Appropriations Bill of June 4, 1897. The uses were limited to timber harvesting, mining, and watershed protection. The concept behind the Week's Law of 1911 which authorized the acquisition of the upstream watersheds of navigable rivers was for other than pure forestry purposes—a forest related resource. The concept of forest management, per se, did not evolve until after 1900. The establishment of the U. S. Forest Service in the Department of Agriculture in 1905 was the beginning of management and protection of the forests and their related resources of range, watershed and wildlife habitat.

In 1901, California acquired and established one of the nation's first state parks, the Big Basin Redwood State Park for the preservation of a magnificant redwood grove. In 1918, the Save the Redwoods League was created by conservation minded citizens for the purpose of raising money to buy and preserve groves of redwoods for posterity. Together, the League, with its hundreds of contributors, and in cooperation with the state of California, has acquired more than 120,000 acres of redwoods, over 60,000 acres of which are virgin groves.

In the 1890's, New York State established its 2,000,000 acre forest reserve in the Adirondack mountains—primarily for watershed protection. Another changing conservation concept stemmed from a public movement with the creation of the National Park Service in 1916. Under the leadership of Stephen Mather and Horace Albright, the Park Service's statutory charge to "conserve scenery - - - and wildlife - - - in such a manner - - - as to leave it unimpared for the enjoyment of future generations" implemented a whole new concept of conservation and resource use.

The U. S. Forest Service pioneered in the field of forest recreation prior to the establishment of the National Park Service. While the statutory authority did not provide for recreation, the Forest Service developed the concept of providing camp and picnic grounds for recreationists in order to concentrate the use for fire prevention purposes. Congress did not fully authorize the Forest Service to provide recreation facilities until 1960 with the passage of the Multiple Use-Sustained Yield Act. To date Congress has failed to adequately fund both of these activities.

However, the Forest Service sensed the changing times and changing needs. Under the leadership of Aldo Leopold, the Service established the first Wilderness Area in 1924—the Gila Wilderness Area in New Mexico. Following that many wilderness, primitive and wild areas throughout the west were created by Administrative Order of the Secretary of Agriculture, instigated by the Forest Service. Two such areas were established on the Trinity National Forest in the late 1920's during my tenure there.

Congress did not recognize the Wilderness Area concept until, after much debate, it enacted the Wilderness Areas Law in 1964. To this day, the only Congressionally approved Wilderness Areas are found in the National Forests. Despite this the Forest Service receives little credit for its foresight in this important concept of conservation. It is hard to understand why some special interest groups now portray the Service as destroyers and enemies of wilderness. Times, philosophies and concepts change.

One of the Conservation mile stones occurred during the depression of the 1930's. The forests and parks of the nation provided an opportunity for the productive employment of thousands of youths under the Civilian Conservation Corps program. This was the first windfall of public funds. It was put to good use by the state and federal agencies. It was the first opportunity to develop needed access, to fight insect and disease infestations, attack forest fires with adequate man power, to build picnic and camp grounds, to provide needed facilities in state and national parks, to initiate soil conservation practices including the Great Plains Shelter Belt Project, to rehabilitate over-used ranges and improve wildlife habitat, and to develop winter sports areas. Skiing was just emerging as a form of winter recreation.

In the late 1930's and early 1940's the idea of improved forest management on private lands became an issue. Under the leadership of Earl Clapp and Lyle Watts, the Forest Service proposed federal regulations for harvesting timber on private lands. This attempt failed, but it stimulated most of the forested states to establish some form of forest practice rules and regulations. Many of the major timber holding companies recognized the need for some form of control. To their credit, many of them developed practices that went beyond the states' regulations. But there were problems, and there still are problems. Problems of cost, of competition, of developing new techniques; silvicultural problems of how best to harvest even aged stands of over mature forests and how to get prompt regeneration and the determination of which lands should or should not be harvested. Different timber species require different silvicultural treatment. All species do not respond to the same type of treatment—some are shade tolerant and others are not. Under certain silvicultural practices the least desireable species follow logging in the natural succession of plant growth. Mineral soil must be exposed if seedlings are to become established. This exposes the soil to erosion. Unfortunately a freshly logged area is not aesthetically pleasing.

During World War II many of the forests took a severe beating. The demand for forest products of all kinds and the opportunity for quick profit saw hundreds of sawmills and gyppo operations move into the woods. Many of the operations had no concern for the future. Timber land owners took advantage of the opportunity to sell their stumpage at inflated prices. Following the war, the demand continued well into the 1950's in order to meet the post war demands for housing and other developments. The rapid increase of population continues to place heavy demands on the forest. The need for 26 million new housing developments during the next 10 years will sustain that demand.

In the mid 1950's the need for more outdoor recreation opportunities and facilities became apparent. The growing population had more leisure time, more money for discretionary spending and greater mobility than ever before. People were on the move, moving from rural to urban and suburban areas. They were seeking change, new environments and recreational opportunities. They looked to the forests and open spaces, to the lakes and rivers for an ever growing variety of recreational activities. Light molded fiberglass boats and improved outboard motors easily hauled on light trailers demanded marinas, launching ramps and related facilities. Trailers and improved camping equipment stimulated the stampede for new adventure. Winter recreation with skiing was becoming popular. We were just begin-

ning to sense the potential demand for more and more recreational opportunities with an ever growing array of activities.

In 1958 Congress created the Outdoor Recreation Resources Review Commission "to determine the outdoor recreation wants and needs . . . and to determine the recreation resources of the Nation available to satisfy those needs now and in the years 1976 and 2000; to determine what policies and programs should be recommended to ensure that the needs of the present and future are adequately and efficiently met." A few states were moving in the same direction about the same time. These studies firmly established the fact that there was a growing public awareness of a shortage in recreation supply for a dynamic and affluent society.

The 1960's saw the explosion of the recreation demand. Conservation and recreation interest groups moved into the political arena. Organizations such as the Sierra Club, Audubon Society, Izaak Walton League, Wilderness Society and others were ready to exploit the opportunity. They moved rapidly and effectively. As a result of the Recreation Commission's study and recommendations, Congress established the Bureau of Outdoor Recreation and passed the Land and Water Conservation Fund Act. Then came the Wilderness Act, the Scenic and Wild Rivers and National Trails Systems acts and the establishment of National Seashores and National Recreation Areas. In order for the states to take advantage of some of the opportunities for federal assistance in planning, land acquisition and development, those states which had not previously done so were quick to create Park and Recreation agencies. Many of the states passed legislation authorizing the sale of bonds to finance recreational projects and programs.

This exploding concept of conservation and recreation increased the competition for lands and resources. It increased the conflicts of interest and philosophies regarding the use of land and resources. For the first time, the public began to realize that forest lands, open spaces and their related resources were in short supply for the needs of a rapidly growing population.

Then in the late 1960's another crisis burst upon us. An environmental crisis. We are now face to face with problems of water, land and air pollution and the defacement of the esthetic beauty of the land. No one will deny that we have been wasteful of our resources. We have used our rivers and lakes as a dumping ground for all kinds of waste materials. We have littered the landscape with obsolete merchandize and garbage. We have spewed all kinds of gaseous materials and particulates into the atmosphere. We have outproduced all others in agricultural crops with the liberal use of fertilizers and pesticides. We have mistreated fragile lands ranging from deserts, to estuaries, to swamps and marshes which are vital to life giving food chains and the critical fish and wildlife habitats. We are being brought up short by the grim reality that something must be done quickly to check the rapid plunge to destruction.

We are moving into a new era—an era of regulation. Agriculturists, industries and individuals oppose regulations. Local and state governments oppose federal regulations. But the evidence is clear—none have adequately regulated themselves. If we are to protect the environment and the competitive position of many industries and localities we must establish national goals and standards for environmental protection and resource use. If we are to maintain a "quality of life" we must have certain regulations and they must be enforced. Many agencies and many corporations sensitive to public opinion and environmental problems are already moving agressively to clean up their wastes. Many recognize their corporate responsibility—but those who don't must be *required* to do so. It will cost money, it will reduce profits, it will increase taxes and the cost of living. We must accept this fact of life. No longer can we take the cheap and easy way out.

This is a rather long account of the changing concepts of conservation. I have identified only a few of the bench-marks of the changes that have taken place. What does all this mean to the foresters, and particularly the young professional foresters who are about to embark upon their careers? Where do they fit into this picture? What are their opportunities and responsibilities?

My answer is that the responsibilities are greater than ever and the opportunities will be commensurate with the manner in which we meet the challenges. Forestry was one of the first professions and the Forest Service was certainly one of the first federal agencies to consider environmental problems in their management processes. It was the first to implement wildland recreation, to create the wilderness concept, to initiate improvement of range lands and wildlife habitat, to manage resources for water supply and watershed protection and certainly the first to scientifically manage the timber resource.

What of the position of the profession today? Are the accomplishments of professional forestry identified and understood? What are the many complex situations which face today's forester? If he hasn't yet, he must become an environmentalist, a sociologist, a planner and an economist in its highest sense, and in areas of high density use he must be an urban planner. With a three-fold population increase since the first forester went to work in this country the demand for forest products and services have multiplied many times. This has resulted in a scarcity of land and resource, increased competition for both goods and services, and emphasized the conflicts of interest between many groups in the allocation of these values.

Industries of all kinds, including the forest industries have taken advantage of technological improvements to serve the public demand, but not to

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serve the environment. Industries, states and cities have taken the cheap and easy way of disposing of liquid, solid and gaseous wastes. The public, state and federal governments have condoned this practice in the past. As a people we have failed to voluntarily control our waste products for the public good or environmental protection. We respond only to regulations. Historically, we have opposed regulations and taken advantage of every loophole to defeat them. Even the recreationists and purists oppose regulations that infringe upon their free and independent use of the wildlands for their particular brand of satisfactions. Everyone wants the benefits without the cost. Genuine recognition of many of these environmental problems and the initiation of controls has occurred during the time that our 1971 graduates have been in college. It is necessary that they become aware of these evolutionary changes and that they develop a sensitivity to the social, economic and political consequences.

Industry has developed the technology of raw material utilization to quite a high degree. Some have gone a long way in recognizing some of the amenity needs by leaving road side screens. In addition they have made over sixty million acres of their lands available for various kinds of recreation uses. But there now is a need for a greater sensitivity on the part of industry to provide services and amenities commensurate with their land and resource ownership.

The science of forestry has made great strides in its short life of less than 70 years. But there is much more to be learned about how to grow more trees per acre in fewer years; about the complex biological relationships of plants, animals, and organisms; about the consequences of various methods of resource management, whether for timber, range, habitat, water or recreation; and about the social and behavioral problems and reactions of people in their use of land, and their responses to various forms of land use management.

Individuals and groups have widely differing objectives and goals. Their interests and activities overlap and interact in different ways. Because of the increasing scarcity of land and reources resulting from more people with more demands, competition for the lands and resources becomes more pronounced. The complex mix of intermingled resources on the land is further complicated by the even more complex mix of our society. We strive for goals, guidelines and methods that will recognize the interrelations and interactions between the resources and their use, along with the interactions of people reaching for their economic, social and environmental needs and wants. There are no simple solutions to these problems. To solve these and related problems will require a high degree of sensitivity and recognition of each others problems as well as the national problems, goals and objectives.

During the last decade a new dimension has been added to the land manager's portfolio of responsibilities—that of beauty and the aesthetics of the landscape. These are amenities that the public is demanding. This element must be recognized whether in a logging lay-out, a recreation facility or an industrial plant. It also relates to the quality of water in a stream or lake, the air we breathe and the total environment in which we live. Sensitivity to the visual qualities of the landscape must be one of the manager's tools.

He must be aware of the social and political changes taking place about him. There is need for better communications, better listening to the words of others and the analysis of social and political feedback in relation to resource management. No longer can major resource allocations and management decisions be made without public involvement. This is demonstrated by the numerous law suits and appeals that have been brought against administrative decisions during the decade of the 60's. On most public issues (and many phases of forestry today are public issues), there are no simple and totally right or wrong solutions. But there are acceptable solutions. The challenge is to work with others to develop acceptable solutions. No easy task, but better to do it before than after the fact. No longer can land managers and resource preservationists afford to deal at arms length.

To meet the problems, the opportunities and the challenges of today, a forester, and particularly the young forester, must be broadly oriented; socially and politically sensitive and responsive; responsibily articulate, imaginitive and innovative. The mountains are higher than in 1925 when I was a young, enthusiastic and dedicated forester. The mountains are indisputably there for those who have the ability and the will to climb them.